Abstract

Introduction. Faecal contamination in wastewater and drinking water is linked to the dissemination of water related diseases. The bacteria, virus and parasites present in drinking water are responsible for substantial morbidity and mortality, especially among infants. Giardia spp. and Cryptosporidium spp. were the organisms selected as parasite contamination indicators. Their presence serves as a useful tool for evaluating water quality and determining sanitary risk. At present, in Colombia, concentration and occurrence of these parasites is unknown and an immediate assessment was considered necessary. Objective. Protozoan presence was determined in five sampling stations in the Bogotá river upper basin and in two drinking water plants near the same area. Materials and methods. The techniques applied for counting encysted forms consisted of inorganic flocculation for wastewater or filtration for drinking water. Fluorogenic vital dyestested for viability. Results. The presence of Cryptosporidium spp. was confirmed in two of the sampled stations and at two of the drinking water plants. Giardia spp. was found at two of the drinking water plants but not at the sampled stations. Viable cysts were found for Cryptosporidium spp. in one of the samples from the Bogotá river, but only inviable exemplars were obtained from the drinking water plants. Conclusions. The results revealed protozoan presence in drinking and residual water implying the presence of a potential sanitary hazard.

Keywords

Public health, water microbiology, Giardia, Cryptosporidium